Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOSEPH P. STEINER
and
GREGORY S. HAMILTON

Appeal No. 2003-0905
Application No. 09/781,426

ON BRIEF

Before WILLIAM F. SMITH, SCHEINER and PAWLIKOWSKI, Administrative Patent Judges.

PAWLIKOWSKI, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 36 through 50.

Claims 36, 40, and 43 are representative of the subject matter on appeal. A copy of each of these claims is set forth in the attached Appendix.

We note that on page 3 of the Brief, appellants discuss a 35 U.S.C. § 112, second paragraph, rejection. On page 3 of the answer, the examiner indicates that this rejection has been withdrawn.

Therefore, the sole issue on appeal is the rejection of claims 36 through 50 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 through 18 of U.S. Patent No. 6,004,993.

The examiner relies on the following reference as evidence of unpatentability:

Steiner et al. (Steiner)	6,004,993	Dec. 21, 1999

At the bottom of page 2 of the Brief, appellants state that the grouping of claims under the judicially created doctrine of obviousness-type double patenting rejection stands or falls together. We therefore consider claim 36, the broadest claim on appeal. 37 CFR § 1.192(c)(7) and (c)(8) (2001).

OPINION

We have carefully reviewed appellants' Brief and the examiner's Answer. This review has led us to conclude that the

examiner's rejection is well-founded for the reasons set forth below.

On pages 3 through 4 of the Answer, the examiner states that claims 1 through 18 of Steiner renders the instant claims obvious because (1) the claims of Steiner are directed to a method comprising administering "N-linked sulfonamide of a heterocyclic thioester" and (2) the instant claims are directed to a method comprising administering a heterocyclic nitrogen-containing compound which has an "N-linked sulfone substituent attached to the heterocyclic ring and a thioester substituent attached to the heterocyclic ring."

The examiner also refers to claims 3, 7, 10, 11, 13, 14, 16, 17 and 18 of Steiner and states that these claims show that the compound "includes heterocyclic compounds having the same substituents" of the instant method.

On pages 3 through 5 of the Brief, appellants argue that "overlap differs from double patenting."

In response, on page 4 of the Answer, the examiner is unpersuaded because "the compound of both methods include [sic, includes] heterocyclic compounds that are the same when an N-linked sulfone substituents is attached to the heterocyclic ring

and has a thioester substituents attached to the heterocyclic ring."

Upon our review of claims 1 through 18 of Steiner, we observe that the N-linked sulfonamide recited in claim 1 of Steiner is a compound of formula I as recited in claim 3 of Steiner. Likewise, the heterocyclic nitrogen-containing compound recited in appellants' claim 36 is a compound of formula I as recited in appellants' claim 40. See the copy of claim 40 in the attached Appendix.

The compound of claim 3 of Steiner is further detailed in claim 6 of Steiner. We observe that claim 6 of Steiner includes the same list of compounds as recited in appellants' claim 43, plus one additional compound.[1] See the copy of claim 43 in the attached Appendix.

In view of this identicalness between each set of claims, we are unconvinced, as is the examiner, by appellants' arguments regarding "overlap."

In view of the above, we therefore affirm the rejection.

[1] We observe that the 3(*para*-Methoxyphenyl)-1-propylmercaptyl(2*S*)-N-(4-toluenesulfonyl)pyrrolidine-2-carboxylate recited in appellants' claim 43 is described on page 17, at lines 7 through 8 of appellants' specification. On page 4 of an Amendment filed on February 6, 2002, appellants amended claim 43 and the specification on page 17, by replacing "α" with "4", to correct a typographical error by which compound 5 was repeated in place of compound 6. The copy of claim 43 in the attached Appendix reflects this amendment made.

CONCLUSION

The rejection of claims 36 through 50 under the judicially created doctrine of obviousness-type double patenting over claims 1 through 18 of Steiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

WILLIAM F. SMITH Administrative Patent Judge	)	
TONI SCHEINER Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
BEVERLY A. PAWLIKOWSKI Administrative Patent Judge	)	

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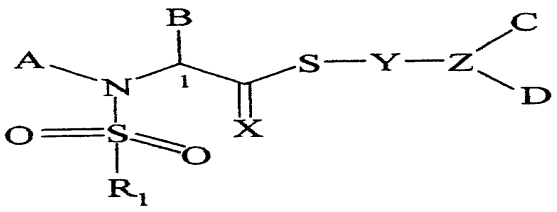
APPENDIX

36. A method for treating alopecia or promoting hair growth in an animal in need thereof, which comprises administering to said animal an effective amount of a heterocyclic nitrogen-containing compound which has an N-linked sulfone substituent attached to the heterocyclic ring and has a thioester substituent attached to the heterocyclic ring.

40. The method of claim 36, wherein the compound is of formula I



I

or a pharmaceutically acceptable salt, ester, or solvate thereof, wherein:

A and B, taken together with the nitrogen and carbon atoms to which they are respectively attached, form a 5-7 membered saturated or unsaturated heterocyclic ring comprising one or more O, S, SO, SO_2, N, or NR_2 heteroatom(s);

X is either O or S;

Y is a direct bond, C_1-C_6 straight or branched chain alkyl, or C_2-C_6 straight or branched chain alkenyl,

wherein any carbon atom of said alkyl or alkenyl is optionally substituted in one or more position(s) with amino, halo, haloalkyl, thiocarbonyl, ester, thioester,

alkoxy, alkenoxy, cyano, nitro, imino, alkylamino, aminoalkyl, sulfhydryl, thioalkyl, sulfonyl, or oxygen to form a carbonyl,

or wherein any carbon atom of said alkyl or alkenyl is optionally replaced with O, NR_2, S, SO, or SO_2;

R_2 is selected from the group consisting of hydrogen, C_1-C_4 straight or branched chain alkyl, C_3-C_4 straight or branched chain alkenyl or alkynyl, and C_1-C_4 bridging alkyl,

wherein a bridge is formed between the nitrogen and a carbon atom of said alkyl or alkenyl chain comprising said heteroatom to form a ring,

wherein said ring is optionally fused to an Ar group;

Ar is an alicyclic or aromatic, mono-, bi- or tricyclic, carbo- or heterocyclic ring,

wherein the ring is either unsubstituted or substituted with one or more substituent(s),

wherein the individual ring size is 5-8 members,

wherein the heterocyclic ring contains 1-6 heteroatom(s) independently selected from the group consisting of O, N, and S,

and wherein an aromatic or tertiary alkyl amine is optionally oxidized to a corresponding N-oxide;

Z is a direct bond, C1-C6 straight or branched chain alkyl, or C_2-C_6 straight or branched chain alkenyl,

wherein any carbon atom of said alkyl or alkenyl is optionally substituted in one or more position(s) with amino, halo, haloalkyl, thiocarbonyl, ester, thioester, alkoxy, alkenoxy, cyano, nitro, imino, alkylamino,

aminoalkyl, sulfhydryl, thioalkyl sulfonyl, or oxygen to form a carbonyl,

or wherein any atom of said alkyl or alkenyl is optionally replaced with O, NR_2, S, SO, OR SO_2;

C and D are independently hydrogen, Ar, C_1-C_6 straight or branched chain alkyl, or C_2-C_6 straight or branched chain alkenyl,

wherein said alkyl or alkenyl is optionally substituted with one or more substituent(s) independently selected from the group consisting of C_1-C_6 alkyl, C_2-C_6 alkenyl, hydroxy, amino, halo, haloalkyl, thiocarbonyl, ester, thiester, alkoxy, alkenoxy, cyano, nitro, imino, alkylamino, aminoalkyl, sulfhydryl, thioalkyl, sulfonyl, C_3-C_8 cycloalkyl, C_5-C_7 cycloalkenyl, oxygen to form a carbonyl, and Ar,

wherein any carbon atom of said alkyl or alkenyl is optionally replaced with O, NR_2, S, SO, or SO_2,

and wherein said cycloalkyl or cycloalkenyl is optionally substituted with C_1-C_6 alkyl, C_2-C_6 alkenyl, hydroxy, amino, halo, haloalkyl, thiocarbonyl, ester, thioester, alkoxy, alkenoxy, cyano, nitro, imino, alkylamino, aminoalkyl, sulfhydryl, thioalkyl, or sulfonyl; and

R_1 is selected from the group consisting of Ar, C_3-C_8 cycloalkyl, C_1-C_6 straight or branched chain alkyl, and C_2-C_6 straight or branched chain alkenyl,

wherein said alkyl or alkenyl is optionally substituted with one or more substituent(s) independently selected from the group consisting of Ar, C_3-C_8 cycloalkyl, amino, halo, haloalkyl, hydroxy, trifluoromethyl, C_1-C_6 straight or

branched chain alkyl, C_2-C_6 straight or branched chain alkenyl, carbonyl, thiocarbonyl, ester, thioester, alkoxy, alkenoxy, cyano, nitro, imino, alkylamino, aminoalkyl, sulfhydryl, thioalkyl, and sulfonyl, and wherein any carbon atom of said alkyl or alkenyl is optionally replaced with O, NR_2, S, SO, or SO_2.

43. The method of claim 40, wherein the compound is selected from the group consisting of:

3-(*para*-Methoxyphenyl)-1-propylmercaptyl(2*S*)-N-(benzenesulfonyl)pyrrolidine-2-carboxylate;

3-(*para*-Methoxyphenyl)-1-propylmercaptyl(2*S*)-N-(α-toluenesulfonyl)pyrrolidine-2-carboxylate;

3-(*para*- Methoxyphenyl)-1-propylmercaptyl(2*S*)-N-(4-toluenesulfonyl)pyrrolidine-2-carboxylate;

1,5-Diphenyl-3-pentylmercaptyl N-(*para*-toluenesulfonyl) pipecolate; and

pharmaceutically acceptable salts, esters, and solvates thereof.